Claims:

1. A method for performing discontinuous transmission in an asynchronous transfer mode ATM, comprising the steps of:

performing a downlink transmission of an ATM cell each time a predetermined number of signal frames indicating a speechless period have been supplied; and

performing an uplink transmission of an ATM cell only when a signal frame indicating a useful information has been supplied.

2. A method according to claim 1, wherein an idle speech frame is generated, when no ATM cell has been received at a receiving end of the downlink transmission.

3. A method according to claim 2, wherein the last signal frame received at the receiving end of the downlink transmission and indicating a speechless period is repeated, when the number of ATM cells not received at the receiving end of the downlink transmission corresponds to said predetermined number of signal frames after which an ATM cell is transmitted.

4. A method according to claim 3, wherein a counter is initialized each time an ATM cell containing a signal frame indicating a speechless period has been received, and wherein said counter is incremented each time no ATM cell has been received.

5. A method according to claim 1, wherein a frame indicating a useless information is generated, when no ATM cell has been received at a receiving end of the uplink transmission.

6. A method according to claim 4, wherein a time alignment flag (TAF) is set at the receiving end of the uplink transmission, when the number of ATM cells received or missed since the last setting of the time alignment flag corresponds to said predetermined number of signal frames.

7. A method according to claim 6, wherein a counter is initialized when an ATM cell containing a set time alignment flag is received at the receiving end, and wherein said counter is incremented each time an ATM cell is received or missed at the receiving end.

8. A method ~~according to any one of the preceding claims~~ According To claim 1, wherein said predetermined number is determined on the basis of a discontinuous transmission period during said speechless period.

9. A method ~~according to any one of the preceding claims~~ According To claim 1, wherein said uplink and downlink transmission is performed in a GSM system between a transcoder and a base transceiver station.

10. A method according to claim 9, wherein a bad frame indicator flag (BFI) of a GSM speech frame is used to indicate a useless information in said uplink transmission.

11. A method according to claim ~~8 or~~ 9, wherein a silence predictor flag (SID) of a GSM speech frame is set on the basis of a speech flag (SP) of said GSM speech frame, and wherein said silence predictor flag is used to indicate said speechless period in said downlink transmission.